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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/887,906	06/22/2001	Dominik J. Schmidt		7458

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EXAMINER
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GELIN, JEAN ALLAND

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	
<b>Office Action Summary</b>	09/887,906	SCHMIDT, DOMINIK J.	
	Examiner Jean A Gelin	Art Unit 2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)<br>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____.<br>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)<br>6) <input type="checkbox"/> Other: _____. |
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### DETAILED ACTION

1. This is in response to the Applicant's amendments and arguments filed on May 26, 2004 in which claims 1 and 11 have been amended. Claims 1-20 are currently pending.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn et al. Dunn (US 5,625,877) in view of Rosener et al. (US 2002/0028655).

Regarding to claim 1, Dunn teaches a method to wirelessly communicate data over a plurality of cellular channels (i.e., sending large amount of information over aggregating available radio channels, col. 6, lines 1-62), comprising: requesting an allocation of preferably adjacent cellular frequency channels from a mobile station to a base station (i.e., portable terminal demands the master microprocessor for available radio channels, col. 7, lines 5-37, col. 8, lines 23-44); allocating available frequency channels in response to the request from the mobile station (the master allocates channels based on the demand, col. 8, lines 24-67); and bonding the available frequency channels to communicate data (corresponding to aggregation of available

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channels is accomplished, communication between the portable terminal and the master, col. 8, lines 1-67).

Dunn does not specifically teach bonding a short-range radio channel to the cellular frequency channels; and communicating over the bonded cellular and radio channels using short-range radio protocol and cellular protocol.

However, the preceding limitation is known in the art of communications. Rosener teaches the Bluetooth interface communicates with the wireless device inside the car and RF interface communicates with the base station outside the car corresponding to short-range radio and cellular channels are bonded and the bonded units use short-range and cellular protocols (sections 0060 and 0069-0077). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement the technique of Rosener within the system of Dunn in order that when a phone's user carrying on a conversation enters a car embedded with the T28 GSM phone (within the repeater) and the signal strength is dropped, the mobile station handoff to repeater and the user continues his normal conversation (sections 0118-0119).

Regarding claims 2 and 3, Dunn in view of Rosener teaches all the limitations above. Rosener further teaches communicating on a short-range radio channel wherein the short-range radio channel is Bluetooth (when inside the car and the signal strength dropped, the phone uses short-range bluetooth interface to communicate, sections 0118-0119).

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Regarding claim 4, Dunn in view of Rosener teaches all the limitations above. Rosener further teaches bonding short-range with the cellular to increase bandwidth (i.e., to allow communication within the car when the mobile phone detects a drop in signal strength, the bluetooth interfaces with the phone to continue communication via the repeater (sections 0060 and 0118-0119).

4. Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn et al. in view of Rosener further in view of Park (US 6,081,168).

Regarding to claim 5, Dunn in view of Rosener teaches all the limitations above except wherein the cellular channels comprise an uplink band around 890 - 915 MHz and a downlink band around 935 - 960 MHz.

However, the preceding limitation is known in the art of communications. Park teaches GSM has separate transmission and reception frequencies wherein an uplink band around 890 - 915 MHz and a downlink band around 935 - 960 MHz (col. 1, lines 18-24). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to implement the techniques of Park within the system of Dunn in view of Rosener in order to use a channel path for transmission and another channel path for reception; thus, reducing collision and interference over the communication channel.

Regarding claim 6, Dunn in view of Rosener further in view of Park teaches all the limitations above. Dunn further teaches bonding over two adjacent channels (i.e., portable terminal demands the master microprocessor for available radio channels

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corresponding to the master allocates at least two channels, col. 7, lines 5-37, col. 8, lines 23-44).

Regarding claim 7, Dunn in view of Rosener in view of Park teaches all the limitations above. Park further teaches wherein each band is divided into 124 pairs of frequency duplex channels with 200 kHz carrier spacing using Frequency Division Multiple Access (FDMA) (col. 1, lines 30-57).

Regarding claim 8, Dunn in view of Rosener further in view of Park teaches all the limitations above. Park further teaches splitting the 200 kHz radio channel into a plurality of time slots (col. 1, lines 33-52); bonding the time slots, and transmitting and receiving data in the bonded time slots (col. 1, lines 33-52).

Regarding claim 9, Dunn in view of Rosener in view of Park teaches all the limitations above. Park further teaches the 200kHz radio channel using time division multiple access (TDMA) (col. 1, lines 33-53).

Regarding claim 10, Dunn in view of Rosener further in view of Park teaches all the limitations above. Dunn further teaches comprising transmitting cellular packet data conforming to one of the following protocols: cellular digital packet data (CDPD) (for AMPS, IS-95, and IS-136) (inherently present in col. 10, lines 20-55).

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Rosener et al. (US 2002/0028655).

Regarding to claim 11, Rosener teaches a reconfigurable processor core, comprising: processing units (T28 GSM phone which can assume the identity of phone 101 typically include a processor (section 0060); a long-range transceiver unit coupled to the processing units, the long-range transceiver unit communicating over a plurality of cellular frequency channels (RF interface to communicate with base stations outside of the car, section 0060); a short-range transceiver coupled to the processing units (bluetooth interface to communicate inside the car, section 0060); and means for bonding a plurality of channels using cellular and short-range protocols (i.e., when inside the car the combination of bluetooth and the RF interface allows the user to communicate, section 0060, 0118-0119).

Regarding to claim 12, Rosener teaches wherein the reconfigurable processor core includes one or more digital signal processors (DSPs) (section 0089, 0091, claim 17).

Regarding to claim 13, Rosener teaches wherein the reconfigurable processor core includes one or more reduced instruction set computer (RISC) processors (claim 17 and fig. 9).

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Regarding to claim 14, Rosener teaches comprising a router coupled to the one or more processing units (to switch from direct RF interface to the use bluetooth interface (section 0118-0119).

Regarding to claim 15, Rosener teaches wherein the short-range transceiver communicates over a short-range radio channel, further comprising means for bonding the short-range radio channel with the cellular frequency channels to increase bandwidth (sections 0060, 0118-0119).

7. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosener et al. in view of Park (US 6,081,168).

Regarding to claim 16, Rosener teaches all the limitations above except wherein the cellular channels comprise an uplink band around 890 - 915 MHz and a downlink band around 935 - 960 MHz.

However, the preceding limitation is known in the art of communications. Rosener teaches GSM has separate transmission and reception frequencies wherein an uplink band around 890 - 915 MHz and a downlink band around 935 - 960 MHz (col. 1, lines 18-24). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to implement the techniques of Park within the system of Rosener in order to use a channel path for transmission and another channel path for reception; thus, reducing collision and interference over the communication channel.



Regarding claim 17, Rosener et al. in view of Park teaches all the limitations above. Rosener further teaches bonding over two adjacent channels (section 0126).

Regarding claim 18, Rosener et al. in view of Park teaches all the limitations above. Park further teaches splitting the 200 kHz radio channel into a plurality of time slots (col. 1, lines 33-52); bonding the time slots, and transmitting and receiving data in the bonded time slots (col. 1, lines 33-52).

Regarding claim 19, Rosener et al. in view of Park teaches all the limitations above. Park further teaches the 200kHz radio channel using time division multiple access (TDMA) (col. 1, lines 33-53).

Regarding claim 20, Rosener et al. in view of Park teaches all the limitations above. Rosener further teaches comprising transmitting cellular packet data conforming to one of the following protocols: cellular digital packet data (CDPD) (for AMPS, IS-95, and IS-136) (inherently present in sections 0084 and 0105).

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claims 11-15, the Applicant argues that Rosener relates to a repeater where signals are converted from one standard to another not a channel aggregator that bonds channels. However, the Examiner disagrees with the preceding arguments. Rosener teaches that the bluetooth interfaces a repeater, which includes a wireless transceiver for long-range communication, to allow the mobile phone within to

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communicate to a base station outside of the car using a bluetooth protocol and a cellular protocol. It is clear that the mobile phone taught by Rosener has the capability to transmit and receive via bluetooth and cellular base station. Therefore, the system of Rosener bonds bluetooth channel with cellular channel. The rejection is maintained and made final.

Regarding claims 16-20, the Applicant argues that Park relates to voltage controlled oscillator and would not be combined with Rosener. The Applicant further argues that the phone of Rosener includes only one processing unit; Rosener fails to teach a long range transceiver coupled to the processing units. However, the Examiner disagrees with the preceding assertion. The claims in Rosener call for one or more processing units. The Examiner only needs one digital processing processor unit \*as taught by Rosener in claim 17) to reject the claim. Further based on the type of service provided by the system of Rosener and the size of the phone, an integrated circuit is inherent in the system of Rosener (sections 0089, 0091, 0118, and 0119).

The Applicant further argues that there is no basis in the art for combining the references in the manner proposed. In response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole

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would suggest to one of ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). references are evaluate by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA; 1969).

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean A Gelin whose telephone number is (703) 305-4847. The examiner can normally be reached on 9:30 AM to 7:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R Hudspeth can be reached on (703) 308-4825. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JEAN GELIN  
PRIMARY EXAMINER

JGelin  
July 29, 2004

A handwritten signature in cursive script that reads "jean Allard Gelin". The signature is written in dark ink and is positioned to the right of the typed name and date.